

91 Turning to the logical branch diagram of FIGURE 2, as shown in box 201 extraneous RF signals are monitored in accordance with the methods described above. The interference is then broken down into interference types at box 202. Generally, the types of interference affecting the present system are narrow band interference impinging on a particular frequency used by the present system and wideband interference impinging upon several system frequencies. The characteristics of the interference are determined at 203. Interference may be of different types having various characteristics, 204, including narrow band interference, box 204-1, impinging on a particular system channel; periodic or intermittent narrow band interference, occurring at determinable time intervals or for a determinable duration, box 204-2; wideband interference, interfering with more than one channel 204-3; and periodic or intermittent wideband interference occurring for a determinable time interval, such as a radar pulse, box 204-4.

In the Claims

As provided for under 37 C.F.R. §1.121(c), a clean version of the entire set of pending claims, whether amended or unchanged, are provided below for the convenience of the Examiner. Attached hereto in the paper captioned "Version With Markings to Show Changes Made" is a marked-up version of the changes made to the claims by the current amendment. Please amend claims 5, 7, and 19 as follows.

1. An RF data transfer system comprising:
means for detecting and characterizing RF interference with said data transfer; and
means for adjusting the RF transmission to avoid said interference.
2. The system of claim 1 wherein said adjusting means includes:
means for shifting a sequence of RF time slots to avoid said interference.
3. The system of claim 1 wherein said adjusting means includes:
means for skipping at least one time period in a sequence of time periods to avoid said interference.
4. The system of claim 1 wherein said adjusting means includes:
means for changing modulation rate of said RF data transfer to avoid said interferences.

aj 5. (Amended) The system of claim 1 wherein said means for detecting is a colocated antenna separate from the antennas used to effect said RF data transfer.

6. The system of claim 1 wherein said means for characterizing includes:
means for analyzing the RF data transfer for characteristics of interference.

a3 7. (Amended) A method of reducing RF interference for unlicensed band transmissions, said method comprising the steps of:
calculating characteristics of RF interference within a band of interest of an unlicensed RF band to arrive at an interference profile; and
adjusting desired RF transmissions to accommodate said interference profile.

8. The method of claim 7 wherein said calculating step includes the step of:
receiving on an antenna separate from the antenna used for said RF transmission at least a portion of said interference, said portion having energy characteristics different from said desired RF transmissions.

9. The method of claim 7 wherein said desired RF transmissions occur in sequential repetitive time slots and wherein said adjusting step includes the step of:
eliminating at least one of said periodic time slots for the duration of said interference.

10. The method of claim 7 wherein said desired RF transmissions occur in sequential repetitive time slots and wherein said adjusting step includes the step of:
reducing in time at least one of said periodic time slots for the duration of said interference.

11. The method set forth in claim 7 wherein said adjusting step includes the step of:
modifying a modulation scheme of said desired RF transmissions.

12. The method set forth in claim 7 wherein said adjusting step includes the step of:
changing code rate of said desired RF transmissions.

13. The method set forth in claim 7 wherein said adjusting step includes the step of:
using a different antenna for said desired RF transmissions.

14. The method set forth in claim 7 wherein said adjusting step includes the step of:
using a different hub for said desired RF transmissions.

15. The method set forth in claim 7 wherein said adjusting step includes the step of:
changing frequency of said desired RF transmissions.

16. The method set forth in claim 7 wherein said adjusting step includes the step of:
changing channel width of said desired RF transmissions.

17. The method set forth in claim 7 wherein said adjusting step includes the step of:
changing polarity of said desired RF transmissions.

18. The method set forth in claim 7 wherein said adjusting step includes the step of:
adjusting a time sequence of said desired RF transmissions to accommodate said interference profile.

19. (Amended) A method for adapting desired RF transmissions to accommodate RF interference said method comprising the steps of:

monitoring an unlicensed RF band for extraneous RF signals;

breaking said extraneous RF signals into interference types;

determining characteristics of said interference, said interface being categorized in at least one of a group of categories consisting of:

periodic narrow band interference;

intermittent narrow band interference;

wideband interference;

periodic wideband interference; and

intermittent wideband interference;

selecting at least one of a group of categories of action to reduce interference, said group of actions consisting of:

ceasing transmissions on a channel for a time slot conforming to determinable time frames of said periodic interference;

ceasing transmissions on a channel for a time slot conforming to determinable time frames of said intermittent interference;

adapting modulation of said transmissions;

changing code rate of said transmissions;

adjusting a time sequence of said transmissions to accommodate said periodic interference; and

adjusting a time sequence of said transmissions to accommodate said intermittent interference.

20. The method of claim 19 wherein said monitoring step includes the step of: receiving on an antenna separate from the antenna used for said RF transmissions at least a portion of said extraneous RF signals, said portion having energy characteristics different from said desired RF transmissions.